

CRYSTAL HEALING:

Using contemporary
scientific theory to explain
how the modality works

By Belinda Davidson

METHODOLOGY

RESEARCH HYPOTHESIS

Conventional science and complementary medicine are perceived by many as diametric opposites, with complementary medicine not operating on a scientific basis. This paper argues that this is not so. The growing body of knowledge within quantum physics shows that a different view of energy is to that accepted in Newtonian physics is required by scientists. The research output of quantum physics is providing a picture of energy more closely linked to the one underpinning crystal healing as a modality. In crystal healing, the energy within the crystal is brought close to the patient's energy field and used to influence the vibration of the patient's energy field to bring about healing. To explain the interplay between physics, crystals and crystal healing, this paper looks at the following:

- i. The evolution of quantum physics
- ii. The history of crystals
- iii. Crystal formations

Research Purpose: Many people are distrustful of going to see a crystal healer and they perceive it as a modality utilizing intuitive skills only rather than using intuition and science based use of the crystals for healing. The emphasis of this research project is to enable the general public to gain more insight into the art of crystal healing and to understand that there is solid scientific evidence that demonstrates its efficacy.

The research methodology is qualitative in nature and consists of literature reviews and case studies. It is an empirical study. The aim is to enable people to understand the underpinning scientific basis for crystal healing and dismiss the belief that the technique is a pseudoscience.

Participants: participants for the study were randomly selected from my client base, and privacy was observed at all times.

Data collection tools: Relevant internet data bases and other scientifically based material. (listed in the research proposal)

Data Analysis: Project scoping was sourced from the following websites:

1. <http://www.holisticshop.co.uk/articles/introduction-guide-crystals>
2. <http://www.health24.com/natural/Therapies/17-670-3969.asp>
3. <http://sciencebasedlife.wordpress.com/2011/09/05/crystal-healing-magic-cures-or-just-rocks/>
4. <http://www.indianreikimasters.com/crystahealing.htm>
5. <http://projectavalon.net/forum4/showthread.php?51054-The-Science-behind-Crystal-Healing>
6. <http://hibiscusmooncrystalacademy.com/debate-on-crystal-healing/>
7. <http://www.answers.com/topic/crystal-healing-1>

: Workshops on crystal surgery hosted by Vivien Schapera were attended

: Workshop on becoming the human crystal, hosted by Naisha Ahsian, was attended

: Thirty case studies were conducted and feedback obtained

: Scientific based literature was read and reviewed

Limitations: Availability of primary source and academically evidenced reading material was limited and much of the press misleading.

Ethical considerations: I have not used any names in my case studies in order to protect my clients' privacy

Significance of the study: The importance and significance of the conclusion and results of this research paper will serve to provide evidential information that crystal healing is scientifically based and real. Thus assisting people being treated in feeling comfortable they are receiving a science based modality.



Diagram 1: Cave of Crystals, Mexico

INTRODUCTION

Conventional science and complementary medicine are perceived by many as diametric opposites, with complementary medicine not operating on a scientific basis. This paper argues that this is not so. The growing body of knowledge within quantum physics shows that a different view of energy to that accepted in Newtonian physics is required by scientists. The research output of quantum physics is providing a picture of energy more closely linked to the one underpinning crystal healing as a modality.

In crystal healing, the energy within the crystal is brought close to the patient's energy field and used to influence the vibration of the patient's energy field to bring about healing. While different cultures have used crystals in slightly different ways, the common thread is that, throughout human history, we have used and revered crystals.

In my healing practice, my favoured modality is crystal healing. Often, when I tell people what I do, their first reaction is that they want to know how it works. In order to answer these questions, I have undertaken research using a range of secondary sources, both books and online material, and primary sources: attending workshops and interviewing my own clients to assess their experiences of my healing sessions with them. I have then reflected on my own experiences in practice to test the validity of what I have learned.

My conclusion is that crystal healing is a modality that relies on the interplay between the human energy field and crystal energy. This interplay is neither random nor inexplicable. It can be explained using the terms and theories of energy and its behaviour that are coming out of research into quantum physics.

Quantum physics has evolved as a means to explain phenomena that "mainstream" or Newtonian physics cannot. For those of us using crystals for healing, it has just substantiated what we have always known, but not always been able to explain: that the vibrations within the crystals have an effect on the vibrations of other objects and living beings.

This paper is divided into two broad sections: the first provides a theoretical base to explaining how crystal therapies work and the second applies this theory to a series of case studies drawn from my own practice.

Because the physics that explains energy and its behaviour is so central to understanding crystal healing as more than just a comforting, ancient healing ritual, the first section of this paper starts by examining some key theories and ideas from the discipline of physics that are important to the argument presented here. Then, the way crystals are formed is discussed with an emphasis on the chemical and energetic aspects of crystals. The seven crystal lattice structures relate directly to the vibrational frequency of each crystal, which is central to its use in healing, and are thus discussed. The human energy field (the electromagnetic energy field surrounding the physical body, also known as the auric field or aura) is then discussed with particular reference to how the crystal energy field interacts with the auric field to effect change in energy vibration – and thereby healing. In the second section of the paper, an overview of the history of the human use of crystals is outlined to provide background to the evolution of the modality before a discussion of various case studies is used to synthesise the theory outlined in the first section of the paper.

SECTION ONE: THEORY

THE SCIENCE BEHIND CRYSTAL HEALING

To understand and quantify the scientific basis underpinning crystal healing, it is helpful to provide a brief explanation of the interaction between light, energy and quantum physics.

When the principles of quantum physics are scrutinised, we are led to understand that as human beings and together with all living things we are composed of energy. We are all part of a Universal energy field that connects us to every other living being.

Recent discoveries in science have taught us that subatomic particles are not particles but packets of energy. These packets of energy may either behave as a particle or a wave, or sometimes both simultaneously.

Scientists have demonstrated that an electron may not be found at a specific location and further there is only a possibility that it might be in the mathematically anticipated location. Essentially quantum physics comes down to humans living in a world filled with infinite possibilities. In this world all crystals have an electromagnetic field and when they are in our vicinity, their electromagnetic energy will impact on our own.

Newton's Laws:

In the late 17th and early 18th century, thanks to Sir Isaac Newton, we'd see ourselves as solid objects. Newton's theory was that the universe consisted of atoms. He thought that these were solid objects with a nucleus of protons and electrons, with electrons circling the nucleus like the Earth travels around the sun. We live and believe our physical world to be this way. We like to experience linear time and physically experience a three dimensional world. Most people believe that this is how the world is made.

Field Theory:

In the early 19th century the discovery of electromagnetic phenomena occurred. Here we find that particles are able to create a disturbance in the space around them thus when another particle is present it feels a force. As a result it became known that we lived in a world where there were forces that interacted and we all experience energy fields. This would explain how we are all able to have an effect on each other without being in physical proximity to each other. This is known as Field theory and explains our ability to pick up vibrations, like when you sense when someone stares at you from across the room or to you pick up a sense about someone before you even speak to them. It also explains how it's possible to feel a vibration from a crystal by just holding it in your hand.

Theory of relativity:

In 1905 Albert Einstein published his special theory of relativity. What this basically says is that time is not linear and that space is not three dimensional. Both go together to form a four dimensional space time continuum. We could all be living all of our lifetimes simultaneously in a different space time continuum. According to Einstein, "Mass is nothing but a form of energy and matter is simply slowed down or crystalized energy" [cited in Brennan 1988:24] Thus as a physical being we are just

made up of energy but not only this, we could be living all of our lifetimes at once in a different time and space. Everything in our world is just energy vibrating at different speeds.

Holograms:

Let us look at a picture made from laser light, this is called a holograph. A Hologram is made by sending a single laser beam through an optical splitter [beam splitter] in order to create two laser beams from the same source. One of the beams passes through a diffusing lens that spreads it from pencil thin rays into flash like beacons. This beam is directed by mirrors to fall onto a photographic plate while the other beam also passes through a diffusing lens but its job is to light up the object being photographed. Now what happens is this beam also falls upon a photographic plate after bouncing off the object and this creates a 3-D image that we call a hologram e.g. In retinal photography. "The amazing property of a hologram is you can cut away a little piece of the photographic film, hold it up to the laser light and still see an entire intact three-dimensional image of the photographed object". [Gerber 2001: 47] The fact is that a hologram is an energy interference pattern in each piece within this pattern contains the whole. This also explains how large amounts of data can be stored within a crystal. This in turn would mean that particles can be waves at the same time that they are particles. The universe has become a web of inseparable energy.

According to a brain researcher and professor at George Town University, Dr Karl Pribram: "The Universe is defined as a dynamic inseparable whole which always includes the observer in an essential way. The hologram concept states that every piece is an exact representation of the whole and can be used to reconstruct the whole hologram". [Cited in Brennan 1988:25]

Our brain operates in a holographic manner as when we use for example our sense of smell the information is sent around our whole system then each piece of our system can produce the information of the whole. If we take this one step further this principle can be seen in the human body where every cell contains a DNA blueprint. From this one cell we can clone the entire human. Now when a foetus is created from a sperm cell from Dad and an egg from Mom, then each cell contains 50% of the chromosome material from each of them. The cells then multiply to form an embryo but the question is how that each cell knows where it must go in order to form say an arm or a leg. Science cannot explain this but the Etheric blueprint of the physical body can.

The etheric blue print is a holographic energy template of the physical body and is the blueprint needed to tell the cells where to go to form the structures of the physical body.

Bioelectrical Fields:

In the 1940s Harold Burr, researcher and teacher of neuro-anatomy and bio electrodynamics in Massachusetts, began photographing the bioelectrical fields of plants and he found that the electrical field around a seedling was not the shape of the original seed, but was the shape of the adult plant. [Cited by Gerber 2001:53]. He is saying that our energy field holds the blueprint of how we will look as an adult and as such can direct the cellular activity to attain this as a physical reality.



Diagram 2: A picture of a seedling showing the electrical shape of the adult plant

Quantum physics:

It has been proven by physicists, through means of the ability of a subatomic particle to be either a particle or a wave or both, that one cannot only convert matter into energy but that it should also be possible to convert energy into matter. We have learnt that light is able to be both a particle and a wave. Light then often appears in discreet energy packets called Quanta. It was then discovered that matter, on a subatomic level does not have a definite existence but has a tendency to exist. Particles can change into other particles and they can come into being from energy and then just vanish. As a conclusion everything that is being is composed of the same energy. Thus we can use the energy of a crystal to influence cellular activity on a physical level.

According to quantum physics a particle has no definite position or speed unless and until these qualities are measured by an observer. There are many particles that cannot be measured but seem to just pop in and out of existence. "Werner Heisenbergs uncertainty principle of 1926 states: You cannot together measure the speed and position of a particle. " [Cited by Hawkins & Mlodinow 2010: 90]

"Quantum physics leads us to accept a new form of determination, given the state of the system at some time, the laws of nature determine the possibilities of various pasts and futures rather than determining the past and future with certainty" [by Hawkins & Mlodinow 2010: 90] According to quantum physics each particle is some probability of being found anyway in the universe, and the universe has no single past or history.

Bells Theorem:

In 1964, a physicist, J.S Bell, published Bells Theorem. This theorem mathematically supports the concept that subatomic particles are connected in some way that transcends space and time. [Cited by Brennan 1988: 27] This means that if something happened to one particle it will affect another particle but this would happen at once without time being a factor. It implies we can connect instantly with anyone, anywhere. This is also the reason why distance healing works. According to Rupert Sheldrake, an English scientist, this is the theory that all systems are regulated by organized fields which serve as blueprints for form and behaviour. This effect reaches across time and space meaning their effect is the same at a distance as it is in close range. [Cited by Brennan 1988: 27]

The Hundredth monkey principle:

A very good example of this is shown by Lyall Watson in the hundredth Monkey principle. In 1952 there was a monkey called Macaca who had been observed in the wild for 30 years. The scientists had been feeding monkeys sweet potatoes dropped in the sand. The monkeys loved the potatoes but not the dirt so one of the younger monkeys learnt how to wash her potatoes and soon taught her mother. The mothers then learnt from their children but somehow the adults did not learn from each other. Then suddenly all the monkeys learnt to wash the potatoes but the amazing thing is that soon colonies of monkeys far away all began washing their potatoes.

This is explained by when a new behaviour is learnt by a species then the causative field for the species is altered. If this behaviour continues, due to morphic resonance, it will have an impact on the entire species. This leads us to conclude that the universe is a connected whole with a huge interlocking web of infinite possibilities. We are a part of the whole but since it is inseparable we are able to tap into this interconnected field to heal anyone anywhere.

The Universal energy field:

Then we have the concept of the universal energy field which states that this field exists somewhere between the realms of matter and energy. Dr John White and Stanley Krippner, specialists in life energies and the physics of paranormal phenomena, state that this energy field has the following properties:

- It permeates all space, animate and inanimate objects and connects all objects to each other.
- It flows from one object to another and its density varies inversely with the distance from its source.
- It also follows the laws of harmonic inductance and sympathetic resonance.
- If you are able to view the field you will see it is very organized. It has pulsing points of light, webs of lines, sparkles and has clouds.
- People who have investigated the field say that united the field is more powerful than if you had to add the sum of all of its individual components.
- The UEF is always associated with some form of consciousness.
- It exists in greater than three dimensions and is amazing in that the energy field always remains charged no matter how much energy is drawn from it. [cited by Brennan 1988: 40]



Diagram 3: The Universal energy field

Quantum physics has discovered a property in the subatomic world, known as non-locality. This refers to the ability of quantum entity, such as an individual electron, to influence another quantum particle over any distance despite there being no exchange of energy or force. [Mctaggart 2003: 12]

Scientists suggest that once quantum particles have made a connection, this connection is always retained no matter how far apart these particles get separated. Thus one particle is always able to influence the other one.

No matter how hard scientists tried to take quantum measurements in the laboratory the results always differed between observers, suggesting that there was a relationship between the two.

The next question was whether the consciousness of the person observing the experiment was impacting on the measurements. That would be leading us to believe that we are in fact the creators of our own reality.

In the world of quantum physics, quantum fields are not governed by forces but by exchanges of energy which constantly moves around in a dynamic pattern. Thus there is a constant energy exchange. Everything in the universe is interconnected through time and space. This is a very important in healing work and in our lives in general as everything we do will have an effect on everyone else.

Einstein's Theory:



Diagram 4: Man levitating in front of the Whitehouse

Einstein's famous equation is $E=mc^2$. This established that energy turns into mass. What is now realised is that this equation tells us how much energy is needed to create the appearance of mass. Thus everything you see or feel in this world at its most basic form is simply a collection of energetic charges that are interacting within a background of electromagnetic charges and fields. There is no such thing as mass, only an electrical charge. Take the example of levitation. This is really only possible physically if gravity has somehow been manipulated.

Bio photon emissions:

Harold Burr, a professor of anatomy at the Yale University School of Medicine, began to study bio photon emissions in living things. This was done by recording the light emitted by cells. He found that in a healthy person the emissions were cyclical and balanced but when someone was ill the

emissions became erratic and disorganised. This showed that where there was a disruption in the smooth balanced flow of energy the person became ill on a physical level

The Digibio laboratory in Claremont, USA, did an amazing experiment where they took a genuine pig heart and kept it pumping using cardiac bypass technology. They were then able to dilate or constrict the blood flow through the vessels by using drugs such as histamine and atropine. They then recorded the frequencies of the electromagnetic signals that were given to the cells by the drugs and when they played the signals back to the heart. The heart reacted in exactly the same way as if it had been given the drugs. This proved that by mimicking the electromagnetic frequency of the drugs, the scientists were able to produce the same effects on the blood vessels as was obtained through conventional medicine. Thus introducing a specific energy frequency to the physical body is able to impact the body in a positive healing way.

Where memories are stored:

Walter Schemp, a mathematician at the University of Siegen in Germany, discovered the quantum holograph in 1992. All of our outer reality that is perceived by the brain comes from the five senses, hearing, smell, taste, touch and visual perception. Immanuel Kant stated that what we know of the world at large is an interpretation made by our brain. The translation your brain makes from the external stimulus of the visual cortex to the picture that you hold in your head is all from external electromagnetic wave patterns. People always thought that memories are stored in the grey matter of your brain. By experiments on rats it was discovered that memory resides in all the different parts of the brain and not in one specific area. Now when the holographic theory was discovered it was realised that memories are stored as a wave interference pattern. Walter Schemp who later contributed to the quantum brain theory by stating that memories are not actually stored within the brain itself but in the fabric of space, the physical vacuum. The brain acts simply as a reader/writer tool to access the physical vacuum where the holographic memory is stored as a wave pattern. The whole body is connected by micro tubules filled with water that connected the whole body like the internet. This meant that the whole body and not just the brain, share the same conscious awareness. The body is like the Internet and the brain like a computer that can log on at any time to any place. This would mean our human capacity for knowledge and communication is far greater than we could ever imagine.

Two scientists, called Helmut Schmidt and Robert Jahn designed a machine to randomly test the ability of a person to influence the results of a machine. So they took a machine that would randomly flash images of a coin that would either show heads or tails. They then asked the subject to focus on getting the machine to flash more images of heads or tails. They consistently showed that intent was able to produce more of the desired images so if human consciousness could influence a machine. What else could it do?

William Braud, a psychologist, demonstrated that people could influence their own muscle reactions and heart rates just by focusing on that area. These studies emphasised how the power of intention could be used as a very powerful healing force. With this capability within the universal energy field the power of intention could be used to heal others, by acting as a healing conduit and allowing the universal energy field to realign another person's structure. This would explain how distant healing works.

Elizabeth Targ conducted a fascinating experiment in 1988. She was a doctor treating advanced AIDS patients. She wanted to see whether distant healing worked. She then carefully matched a control and treatment group who were all certain to die. Half of the group were treated by 10 different healers. There were 40 patients in the study. The results were astounding as to how well the treated group were doing physically and psychologically. This work would suggest that illness

it is a disturbance in the quantum fluctuations of an individual. Healing may be seen as providing information to return the system to stability.

The above scientific data has proven that the whole world and everything in it consists purely of energy. We are surrounded by our own individual electromagnetic fields which are usually labelled as the Aura. Surrounding and interpenetrating everything is a Universal energy field inside which we all reside. Everything we do will have a ripple effect. We do not live in a three dimensional universe and there is no linear time. Thus all of our lifetimes could be experienced at the same time but in a different space time continuance. Our intent is able to influence energy and this is very important from the perspective of healing so if we use good intent we can do good things. We all have a unique frequency at which we vibrate and each organ of our body also has its own unique frequency. Crystals have their own resonant base frequency at which they vibrate. When a crystal is placed within the human energy field certain molecules in the crystal through resonance will in turn cause an out of balance molecule within a physical system to return into harmony thus bringing about healing.

Viewed from a Newtonian perspective of science, complementary medicine is unscientific and improvable. But, with the advent of quantum theory and the resultant change in how science explains natural phenomena and energy, this has changed. Quantum physics acknowledges that there is more to science than Newtonian physics can explain. Energy healers have understood energy, crystals and the human body in these terms for centuries. To better understand the energy within crystals, we need to look at how they are formed and how this affects the energy they carry.

CRYSTAL HEALING: Using contemporary scientific theory to explain how the modality works

HOW CRYSTALS ARE FORMED

Crystals were formed over millions of years and date to the earliest stages of the Earth's formation. When the Earth formed, a cloud of gas preceded a dense dust bowl which then contracted into an incredibly hot molten ball. Over millions of years, this molten material, called magma, cooled and formed a crust which became the Earth's mantle. However, molten magma still lies at the centre of the Earth, just a few kilometres beneath your feet.

In the Earth's crust, new crystals would continually form as the molten magma core would find weaknesses in the earth's mantle and track towards the surface. The magma is always moving up towards the earth's crust where it then cools and sinks down again. This movement can cause cracks in the earth's surface such as the one in the Atlantic Ocean known as the mid-Atlantic ridge.

Where the earth's tectonic plates push up against each other, mountains are formed and, when the crack opens completely down to the magma, we experience a volcanic eruption.

Some crystals form in deep Chambers, others grow from continuous dripping and some are formed by huge pressure being exerted on them. The method of formation affects the look, function and energetic properties of the crystal.

Igneous Crystals, such as Quartz, are the most common crystals on earth. They are formed in the molten hot centre of the Earth and then rise to the surface, pushed outwards as the tectonic plates on the Earth's surface shift. As this hot molten material penetrates the Earth's mantle and boiling gases meet solid rock, a rapid cooling process is forced to take place. If the crystal is formed inside a bubble of gas it can grow unhindered but if this process happens very fast then a substance like glass is formed e.g. Obsidian. If the process is halted and then starts again then a Phantom is created. This is when a crystal forms within another crystal or we will get a self-healed crystal forming.

Crystals, like Aventurine and Peridot, get created at high temperatures but when the gases penetrate into nearby rocks, crystals like Topaz and Tourmaline are formed. When the magma cools and the vapour forms a liquid, this mineral rich solution lays down crystals such as Aragonite. Metamorphic crystals: these are crystals like Garnet which form deep in the earth. When under tremendous pressure and heat the minerals melt and re-crystallise undergoing chemical changes. Calcite crystals are formed by dripping. Rocks on the top break down and mineralised water drips through the rocks laying down this material as new crystals.

Sedimentary crystals are often softer and get laid down in layers. They are usually found still attached to the bedrock on which they are formed.

The atom forms the heart of the crystalline structure so while a crystal may look serene it is a seething mass of energy vibrating at its own frequency.

Basic crystal shapes and geometric forms: There are seven basic crystal systems in the whole world and are listed as follows:

Type of crystal	Example	How it is formed	Properties
Hexagonal	Apatite, Morganite	Formed by Hexagons	One 6 fold axis
Cubic	Diamond, Pyrite	Formed from squares	Axis at right angles to each other
Trigonal	Citrine,	Formed from triangles	Four 3 fold axis
Tetragonal	Rutile, Zircon	Formed from rectangles	Long and short axis at right angles to each other
Orthorhombi	Peridot, Topaz	Formed by rhomboids	Three 2 fold axis
Triclinic	Amazonite, kyanite	Formed by Trapeziums	Have no axis
Monoclinic	Selenite, azurite	Formed by parallelograms	One 2 fold axis
Amorpheous	Moldavite, Obsidian	Have no inner structure	

The various types of crystals, and how they are formed, relates to the electrical charge that they carry and can conduct. Crystals tend to be magnetic or electrical depending on their mineral content. Both magnetic and electric energy forms fields. This means that all crystals are surrounded by energy fields.

Another property all molecules, including those in crystals, have is that they vibrate. The frequency at which a molecule vibrates is linked to its chemical composition as each element has its own resonant frequency. In crystal work, this frequency is referred to as the base resonance frequency of the crystal.

As various crystals have different levels of conductivity and vibration, this will in turn affect how they can be used in healing. When crystals are used in healing, these two properties are used to work on two levels with the patient: with the subtle energy fields (the chakras, the seven levels of the aura and the meridians) and with the physical body itself.

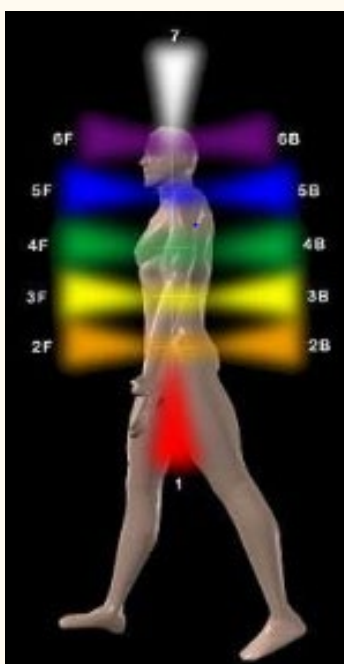
In the same way that laws of quantum physics apply to the energy within crystals, the molecules within our bodies both vibrate and form an energy field around us. This is the human energy field.

THE ANATOMY OF THE HUMAN ENERGY FIELD

In the nineteenth century Field Theory was developed to explain how objects can have an effect on one another without being in physical proximity to each other. It was found that particles create a disturbance around them which other particles can feel. In energy healing, practitioners work with the energy field around the human body. This is called the aura.

The human Aura consists of seven layers. Every layer has its own unique structure. These layers are an energetic duplicate of our physical body. Each layer interpenetrates all the layers below it so it's really each preceding layer goes out a little further from all the preceding ones. Within this field are the swirling vortices known as the chakras. Each chakra is associated with an auric level so the root chakra will be associated with the etheric level and this governs the physical body and its functioning. The sacral chakra is associated with the lower emotional level that governs our feelings about ourselves. The solar plexus chakra goes together with the lower mental level so has to do with our intellectual functioning. The heart chakra is joined to the fourth auric level known as the astral bridge and this has to do with our world of relationships. The throat chakra goes with our higher physical level and this is to do with the power of the spoken word and speaking things into being. The brow chakra goes with our higher emotional level. This has to do with the love, care and nurturing of all life. The crown chakra is associated with the higher mental level which is to do with our higher mind and spiritual makeup. There are various physical symptoms that can be related to certain areas within our energy field and the nature of this information helps us in knowing how to treat the ailments.

Chakras and Meridians of the body: There are also seven special energy centres that exist within our subtle bodies. They are also receptors for higher energies to enter into the physical body. They seem to function as energy transformers, converting etheric energy into hormones that then impact on the whole cellular system. Each major chakra is associated with a major nerve grouping and endocrine gland.



The root chakra is at the base of the spine. The sacral chakra is located just below the umbilicus the solar plexus chakra is in the middle of the abdomen just below the tip of the sternum. The heart chakra is just over the heart and thymus gland. The throat chakra is in neck directly over the larynx and thyroid glands. The brow chakra is in the centre of the forehead just above the bridge of the nose and the Crown chakra is on top of the head.

The root chakra governs the sacro-coccygeal plexus. It governs the reproductive system and the sexual hormones of oestrogen and testosterone. The sacral chakra governs the sacral nerve plexus and the genito-urinary system. It is ruled by the Ledig endocrine system that controls hormones like Aldosterone and ADH. The solar plexus chakra governs the solar nerve plexus and the digestive system. The adrenal glands are important at this level. The heart chakra governs the heart nerve plexus that governs the whole circulatory system and the Thymus gland. The throat chakra governs the cervical ganglion

Diagram 5: Positioning of the chakras

and medulla and the respiratory system. The endocrine gland here is the Thyroid gland. The brow chakra governs the hypothalamus and Pituitary nerve plexus. The Pituitary gland is the endocrine gland governed by this chakra. The Crown chakra is governed by the Cerebral cortex and Pineal gland and is responsible for the entire central nervous system.

The physical body depends on the etheric body as the etheric body carries the blueprint of the physical body. The etheric body is responsible for guiding tissue repair and cellular growth. Illness begins at the etheric level and then manifests into the physical. The physical body cannot exist without the etheric body.

The chakras and meridians are the major channels which transport energy from the etheric realm into the physical body. A number of studies were done where radioisotopes were injected into the meridians points on the body and it was discovered that there was a ductile system that was not only interconnected to itself but is also connected with all cell nuclei of the tissues. The meridians transport energy from outside the body to all of the cells. They are divided into six groups depending on their location and function and connect with the organ they are named for e.g. the liver meridian connects to the liver.

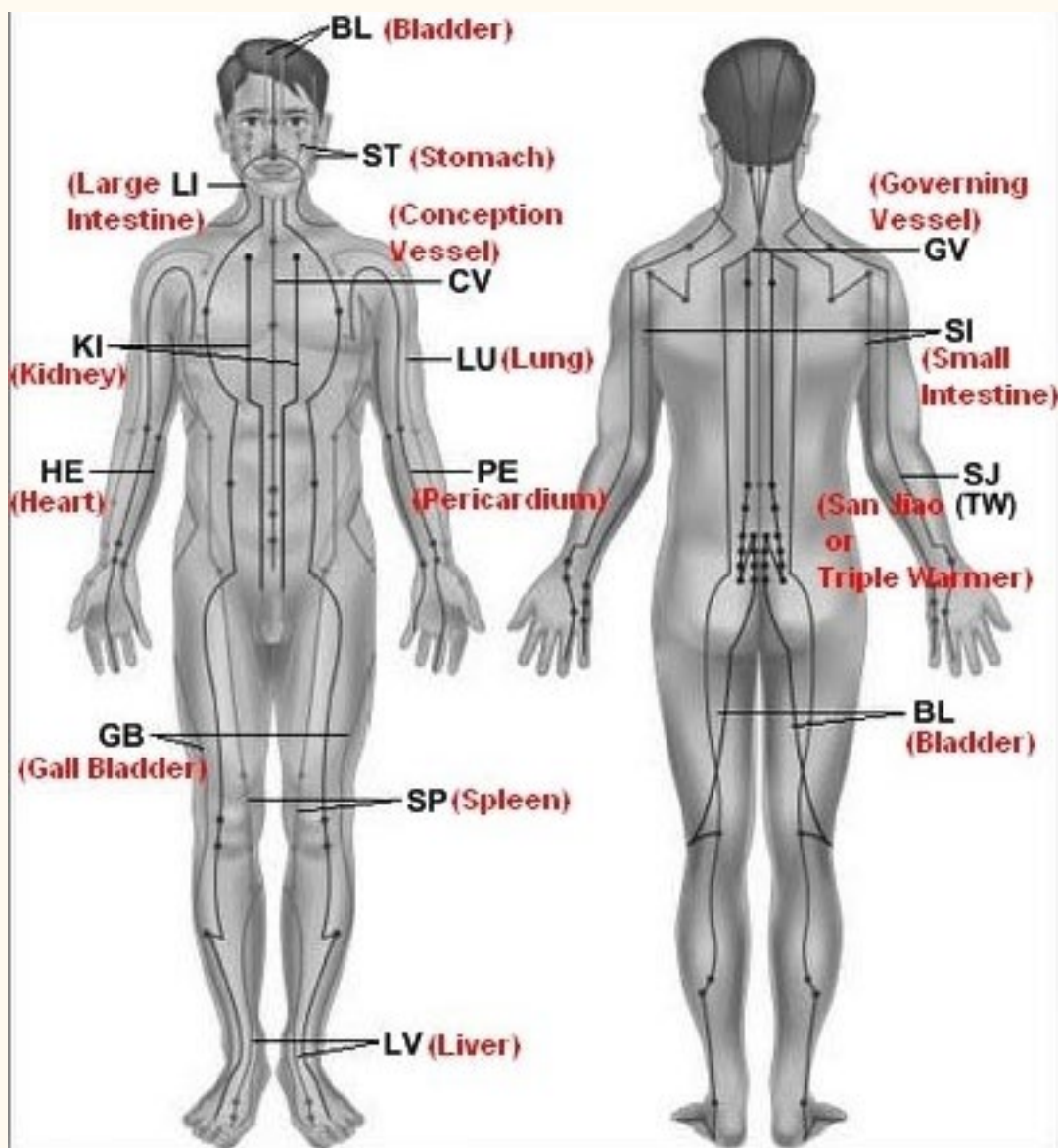


Diagram 6: The meridians of the body

Studies performed by Dr Harold Burr (Cited by Gerber 2001: 127) show that "The meridian system preceded the development and placement of rudimentary organs in the embryo." The meridians form the connection between the etheric and physical body.

Then we get to the Nadis, which are like energetic blood vessels. They are not like the meridians that run along physical channels in your body. Instead, they connect purely energetically to the nervous system in order to transport etheric energy into the physical nervous system. Any malfunction of the system gives rise to disease.

Dr Valerie Hunt of UCLA conducted an experiment to see if energy could be measured coming from the chakras. She then connected EMG electrodes to the skin directly over the chakras. Her subjects were trained meditators and she was assisted by a trained psychic observer called Rosalind Bruyere who was able to see subtle changes in the subject's aura while the measurements were being taken. Dr Hunt found that Rosalind's colour observation corresponded exactly with the EMG recordings. Dr Hunt discovered that each colour of the aura matched a different wave pattern recorded at each chakra point. This would seem to prove scientifically the chakra system does exist. [Cited by Gerber 2001:130]

The Aura: Around and interspersed with in the human body we find the Auric body. There are seven auric layers around the physical body. They are the etheric layer, lower emotional, lower mental, astral bridge, higher physical, higher emotional and higher mental. They each serve a very specific purpose.



Diagram 7: The Aura

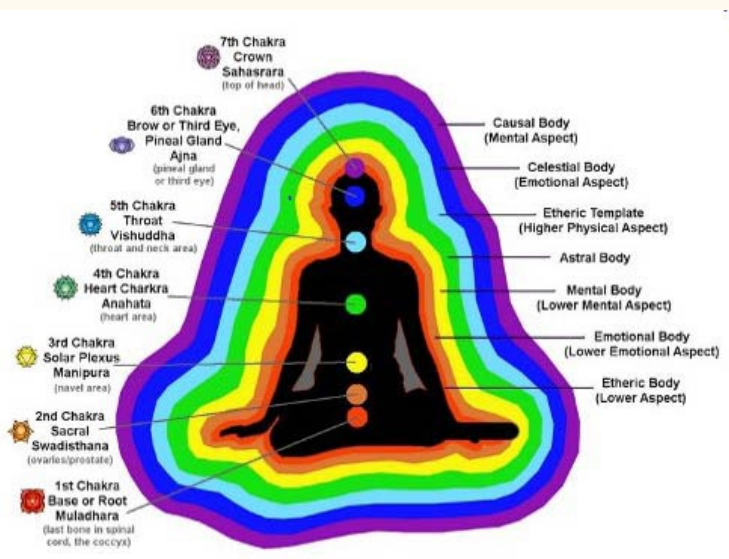


Diagram 8: The chakras and auric layers

The first Level also known as the etheric layer:

This is the level where you feel all physical sensations, painful and pleasurable. The colour of this level is a fine, thin and light aqua blue for sensitive people and a thicker and darker blue-grey for strong robust people. This level goes with feeling your body. Feelings of vitality, physical activity, contact, sex, sleeping and also includes the pleasures of tasting, smelling, listening and seeing.

The second level also known as the lower emotional level:

This level is associated with your feelings or emotions about you. It consists of bright colours with cloudlike energy are associated with positive feelings about you. These coloured clouds flow along the structured lines of the first field level. If you allow feelings to flow, positive or negative, the aura keeps itself balanced and the negative energies are released and transformed. If the second level

is charged you enjoy your emotional relationship to yourself and feel good about yourself.

The third level also known as the lower mental level:

This level is associated with our mental or rational world. The lines of structure in this level are very delicate like a fine thin veil. This level has light lemon yellow energy lines which pulse at a very high rate. When this level is balanced and healthy the rational and intuitive mind works together in harmony as one. You experience clarity, balance and a sense of appropriateness. You will have a strong clear mind that serves you well.

The fourth level also known as the Astral Bridge:

This level carries our whole world of relationships. From this level we interact with other people, animals, plants, inanimate objects, the earth, the sun and the universe as a whole. Here are all our feelings about each other. The energy of the fourth level is like coloured fluid. The fourth level contains all the love and joy as well as the struggle and pain of a relationship. If you have a strong, healthy charged fourth level you will have a lot of good relationships with others and your friends and family will make up an important part of your life. The fourth level of relationships represents the bridge between the physical and spiritual worlds.

The fifth level also known as the higher physical level:

This is the level of divine will. There is an empty slot in the fifth level into which each blue line of the first level fits. The fifth is a template for the first and holds the first in place. The divine will exists within you and all around you. You have free will to either align yourself with the divine will or not. It has a powerful feeling of will and purpose. To experience it is to experience perfect order. If this level is balanced you will feel great power and connectedness with all that is around you because you will be in place with your purpose. If your fifth level is strong then you are one of those people who understand and maintain order in your life. Your house is neat; you are on time and do your job very well.

The Sixth level also known as the higher emotional level:

This level looks like beautiful streamers of light radiating in all directions. It contains all the colours. This is the level of feelings with our world of spirit; it is the level of our divine love. It is experienced as spiritual love, joy, elation or bliss. We reach this level through meditation, chanting, fine music or contemplation.

The seventh level also known as the higher mental level:

If this level is healthy it is composed of beautiful extremely strong golden lines of energy that scintillate at a very high frequency. They extend out from the body 3 to 3 and ½ feet. The seventh level forms into a golden egg that surrounds and protects everything within it. The outer edge of this egg is thicker and stronger and it regulates the flow of energy in and out of the aura. It prevents energy leakage from the field, as well as penetration by unhealthy energy from the outside. The seventh level is the level of divine mind. When it is healthy and we bring our conscious awareness to this level, we experience divine mind within us and enter into a world of the universal divine mind field. Here we understand and know we are part of the great pattern of life. Here we know perfection within our imperfections. Here we will eventually learn to communicate mind to mind. If the seventh level is strong you will have creative ideas and clearly understand broad overall concepts about existence, the world and its nature. You will have a clear understanding of God.

The subtle energy bodies that comprise the human energy field, like crystals, are energy fields and follow the rules of quantum physics in how their energy behaves. Each layer of a person's subtle energy body is an energetic reflection of aspects of the person's physical, emotional and mental being. Each layer vibrates at a particular frequency when the person is healthy. This changes when there is disease or distress. However, the disease or distress may not yet have manifested in the physical body, as the subtle energy bodies act as a buffer for the person. It is only when we don't address the problems early enough (while they are still energetic imbalance rather than physical disease) that we get ill.

Crystal healing uses the vibration of the crystal and the concept of resonance to restore the affected component of the subtle energy body to its natural, healthy vibration frequency.

Because different people and different layers of their subtle bodies vibrate at different frequencies specific to their natural, healthy state, different crystals are used as each crystal has its own base resonance frequency. The application of this scientific background to the healing process itself lies in knowing what crystals to use for what purpose.

CRYSTAL HEALING: Using contemporary scientific theory to explain how the modality works

Crystal healing as a treatment modality harnesses the energetic properties of crystals to influence the patient's energy field to return to its specific healthy vibrational frequency. Because different people and different layers of their subtle bodies vibrate at different frequencies specific to their natural, healthy state, different crystals are used as each crystal has its own base resonance frequency. In practicing crystal healing, the skill is to know what crystals to use for what purpose.

Throughout human history, this principle has been applied to healing and crystals revered for the effects they were considered to have. This experiential knowledge, carried through generations, may not have been explicitly using quantum physics to explain or justify the efficacy of what people did or believed, but we now know that there was a scientific basis to this body of knowledge.

It is important to understand how different cultures have used and revered crystals over time, as aspects of this knowledge are still used in modern crystal healing practices. Thus, this section of the paper starts with an overview of the history of crystal uses, culminating in a discussion of how crystals are being used today in various applications.

Then, I shall use case studies from my own practice as a crystal healer to demonstrate how the principles discussed in the theory section of the paper can be seen to be in action in contemporary healing practices.

THE HISTORY OF CRYSTAL USE BY DIFFERENT WORLD CULTURES

It is believed that Crystal history started in the age of Atlantis when the advanced civilisations used crystals to enhance the cosmic forces. This supplied power for all of their practical and physical needs. When people started to become egocentric and misused their power, Atlantis was destroyed. The people who survived Atlantis fled to Egypt and Peru. The pyramids perfect shape duplicates a crystal lattice and it is believed that the pyramids of Giza were originally capped with giant crystals to help ground and use this cosmic energy.

In Exodus [XXVIII. 12.29] in the Bible it is recorded that the high priest wore a breastplate made of twelve precious jewels that would give Aaron the power of God. Aaron was the first high priest and was Moses' brother. Aaron was given instruction from God as to how the breastplate was to be made. Each of the stones carried the name of one of the twelve tribes of Israel. When the high priest needed to ask God a question, he answered through the stones.

The people of Atlantis and the Old Testament Israelites were not the only people to use and revere crystals. Here is a synopsis of how other cultures used crystals:

The Ancient Egyptians:

The Ancient Egyptians wore crystals primarily for protection and health. The pharaohs would always carry two cylinders, one made of copper and the other of zinc, filled with quartz. These were said to balance the Ka and Ba energies of the body. The equivalent of Yin and Yang today. When the dead were buried a piece of quartz was placed on the third eye to help guide them to the afterlife.

Crystals have always been linked to royalty throughout history. They were worn as jewellery and in Crown's. There were also laid in swords and thrones. Many were buried with an array of elaborate crystals.

Crystals were worn in crowns by ancient rulers in order to enhance their wisdom. They were also worn on certain fingers in order to channel certain purpose and influence into their lives.

Many dancers wore rubies in their navel in order to enhance their sexuality. Crystals used to adorn the third eye to assist the wearer in staying attuned to God. Necklaces were worn over the heart to bring love into the wearer's lives. Gemstones worn as earrings would stimulate the reflex points that would act on other areas of the body.

Ancient Egyptians used ground lapis lazuli and malachite as eye makeup.

Chinese:

Chinese emperors were buried in Jade armour as a symbol of wealth and power.

Greeks:

The ancient Greeks would rub themselves all over with iron ore [crushed haematite] believing that this would make them invincible in battle.

Indians:

Kings in India collected crystals to use as protective amulets. As early as 400BC, astrologers advised people with problems to wear certain stones or crystals to counteract the negative influences of the planets. They advised people to wear haematite when there was a problem with Mars energy. Haematite contains iron and it has since been discovered that Mars has a very high content of iron ore.

Romans:

Many of the medical practices in ancient times treated people by having them wear crystals as amulets and talismans. In ancient Rome they were worn for health, protection and to attract desirable things.

Mayan and American Indians:

Mayan and American Indians have used crystals to diagnose and treat disease. There are also used as objects of divination to see into the future.

They were used as ancient tools and weapons. When two pieces of flint are struck together so that one breaks, the curved edge is as sharp as a blade of steel. Flint is also piezoelectric so was used to spark when they were struck together. This was very useful for starting fires.

Japanese:

The ancient Japanese were very adept at the art of scrying using transparent crystal balls. Crystal balls produce visions as the light reflecting from the polished surface eventually tires out the optic nerve so it stops transmitting an external image. Thus the ball disappears or “mists over” just before a vision is seen. Without an exterior image to fix itself on, the eye then responds to stimulus coming from the mind of the gazer.

Prehistoric Irish:

Pre-historic humans constructed Megaliths, or tribal burial chambers, according to the texture, weight, colour and resonance of the stone. Huge stones were transported over vast distances. An example of a Neolithic burial chamber was uncovered by a team of scientists from Princeton University. They were experimenting at the Newgrange Megalith in Ireland [from 3500BC]. They used instruments to broadcast different frequencies until the natural lowest resonance of the chamber produced an internal vibration. This was the same frequency as produced by an adult male voice. It would seem ancient man had found a way of amplifying the sound of his voice within resonant rocks.

As crystals are worn their energies react to the human electromagnetic field in order to bring in subtle healing energy and improvement in physical, emotional, mental and spiritual balance. Since ancient times gemstones have been revered and used. This trend continues into the present time.

SOME MODERN USES OF CRYSTALS

Crystals have many technological uses in our modern world. They have been shown to be one of the best and most stable conductors for energy. They are also excellent at concentrating energy so that it may be directed to a specific spot. These are the same qualities that make them so useful for directing energy to the various parts of the human physical and subtle anatomy which need healing.

Listed below are some of their uses in modern technology:

1. Silicon chips are used to provide memory in every computer manufactured. They have the ability to store information and they are also used in healing by accessing stored information in the crystal that may relate to the origin of a disease.
2. Diamond tip drills are used to drill into very hard material. Specifically diamonds are used. This level of hardness makes them hard to destroy or damage, making them very durable.
3. Quartz crystals are incorporated into watches and clocks to provide accurate measurement of time. The Quartz is used as the crystal lattice provides stability of structure and regularity of flow of any electromagnetic energy that moves through it. This is an excellent quality when used in healing as it regulates and balances the energy being directed through the crystal.
4. Many crystals are piezoelectric, meaning when they are compressed, twisted or changed they acquire a charge. Through this, mechanical energy can be changed into the electromagnetic energy or vice versa. Piezoelectric crystals, such as Quartz, are still used in radio in order to stabilise channels as they get split so a broader spectrum of radio frequencies can be used. This quality assists one to understand how the crystal can be utilized to balance the energy of the subtle bodies and the chakras.
5. A Quartz crystal microphone reacts to force from sound waves hitting the crystal and then the crystal changes the sound energy into electrical impulses which can then be amplified and broadcast. In this manner we can see how discordant energy is balanced and energy can be amplified using the crystal.
6. Crystals such as Galena & Pyrite are used to make crystal radio receivers as they can transduce

the electromagnetic energy of the radio signals and then transform them into sound waves that can be heard by the person listening to the radio. Crystal radios do not need batteries or any power source as they draw energy from the radio waves that are transmitted through the atmosphere. This demonstrates how some crystals can act as resonators and transducers of electromagnetic energies. These crystals have also been shown to balance and regulate brainwaves.

7. A Ruby crystal was the key component to the first laser developed by Bell laboratory in 1960. A ruby was used for its amazing ability to focus and concentrate energy. Ruby lasers are used in microsurgery today as well as for reading a CD in a CD player. This is an excellent quality when directing healing energy to a specific area within the body.
8. Television and cell phone screens are nearly always made from liquid crystals as crystals in a liquid state can carry light very precisely.
9. It has been discovered that thousands of holographic 3-D images can be stored within a single crystal. The Oak Ridge National laboratories in Tennessee are currently considering utilising Niobate related crystals to store all of the billions of Social Security information for the USA. [Gerber 2001: 326]. It was believed that, when Atlantis was destroyed, the knowledge of that time was stored in crystals known as "record keepers". If we have the technology to store vast amounts of information in crystals then we are likely to be able to develop the technology to extract the information from the "record keepers".
10. Scientists have learned to artificially grow crystals with special energy characteristics, such as silicone in order to create solar cells. In a similar way, crystal healers use some laboratory grown crystals in healing, such as Aqua Aura Quartz, as they have a very specific energy frequency. Aqua Aura is a very high frequency stone and so is used in applications where a high frequency is needed, such as in work with the crown chakra.
11. A crystal tip over a phonograph needle transfers mechanical vibration from the patterns on the record groove into electrical oscillations. These oscillations are amplified by the solid or transistor class A amplifier of the record player into amplitude waves carried by electricity and fed into loud speakers (using magnetics) into actual sound waves reconstituted words and music (Gerber 2001: 337). In a similar manner, crystals may be used to translate energy from one form into another. They have properties which dissipate discordant energy and balance this energy to bring about healing.

Crystals are the most orderly structure in nature because they have the lowest state of entropy possible. Entropy is the measure of "disorder" of the system. The crystalline structure responds in unique ways to a wide spectrum of energy's and depending on the input of these energies, the crystals oscillate and thereby create a specific vibratory frequency of energy emission. The balanced state of the crystal lattice means that the energy flow through the lattice is conformingly balanced and constant. It also means that when discordant energy enters the lattice it is then balanced and transformed out of a state of flux. This helps to balance the human energy field and bring about a state of order in the body that is conducive to the amelioration of disease because the energy field has been returned to its natural, healthy vibrational frequency and this resonance influences the physical body to also return to its healthy state

HOW CRYSTALS CAN BE USED IN A HEALING CONTEXT

Disease happens when there is an imbalance or blockage in our energy flow. The disease will start in the energy field and then become transmuted to the level where it manifests as a physical condition. The cause of the disease is often psychological or physical trauma and sometimes both. In order for healing to take place there has to be rebalancing of the energy body; what caused the disease to manifest has to be dealt with and the necessary lifestyle changes need to be made. A change in life leading to a stronger connection with the higher self is required. Our thoughts affect our auras which in turn affects the physical body. (Brennan 1988:7)

Crystal healing works on the principle that every cell in the body vibrates at a specific frequency. When these frequencies change from the natural resonant frequency (our “healthy state”), we become ill. Crystals also oscillate at their own natural frequency. The natural healing frequency of the crystal is activated by the healer’s intention. As discussed in the theory section of this paper, energy from the universal energy field is channelled through the crystal. The crystal then transmits and amplifies the correct frequency to the cells in the body that require balancing. Then, following the laws of resonance, these cells are returned to their normal base frequency which will then bring the body back into harmony and restore health.

Human DNA that makes up the physical body is formed in a crystal lattice structure. Bio physicists put forward the supposition that that DNA within the human body is a liquid crystal (Gienger 1988). This in turn supports the theory that the crystalline lattice structure in every part of our body is in communication with the other parts by means of a responsive liquid crystalline medium. Liquid crystal is an ideal transmitter of communication, resonance, and coherence because it retains the lattice structure (such as that of a crystal) and is therefore a stable molecular structure. DNA functions not only as a protein builder but also as a medium for the storage, receiving, and communication of information.

In the Kalahari Bushmen healing dance (Simmons & Ahsian 2005), where the candidate is filled with life energy, every part of their body becomes aroused, hot, and begins shaking. If he/she grabs another person and hugs him/her, that person also begins shaking and may turn and grab someone else. One by one, everyone begins literally vibrate with this pulsing energy.

However in Western culture and other contemporary cultures (such as Chinese medicine), this phenomena becomes constrained and resultantly is limited to manifestation through more subtle practices, such as “therapeutic entrainment.” This is demonstrated when a specific crystal is placed on the human body, the DNA then picks up the vibration of the crystal and begins to vibrate at the same frequency.

The development of scientific equipment that cells emit electromagnetic energy has proven this to be so. Various stones carry different frequencies: some low and some at the upper range. These stones are well suited for healing on a physical, emotional, mental or spiritual level. For example, haematite vibrates at a low frequency and is useful for to ground the patient – which requires that their vibrational frequency be lowered in order to restore health.

Each crystal vibrates in its own unique frequency. Crystal vibrations are routinely measured by infrared and Raman spectroscopy. Some have a very narrow spectrum and others have a far greater range. Crystals and stones carry the entire spectrums of light energy available to us, from the low frequencies needed for physical balance to the very high frequencies needed for spiritual work.

Every being in the planet is part of the universal energy field that consists of electromagnetic or light energy. If any of our systems are out of balance, our health will be compromised. Crystals can be especially helpful in balancing the systems within the body. The crystals act as an electromagnetic distribution system for the Earth.

“When we bring the crystal into our electromagnetic field, two things occur. The electromagnetic frequencies carried by the stone will vibrate with related frequencies in our own energy field through the physical law of resonance, creating a third larger vibration field. The nervous system is attuned to these shifts in energy and transmits this information to the brain. Here the frequencies stimulate biochemical shifts that affect the physical body and shift brain function to open the client / patient to emotional experiences.” [Simmons & Ahsian 2005:28]

It has also been found that humans have tiny particles of minerals in their bodies that operate on the same frequencies as the minerals in the crystal, so they too will start to move into resonance. For example, if a person holds a calcite crystal, the vibration of the calcium molecules in the crystal triggers the calcium particles in the body to move into resonance with the crystal. This creates a third, larger field with the signature of calcium. The brain gets the information from the nervous system that there is more calcium in your body. The brain then adjusts the body's chemistry, fooled into accepting there is more calcium in the body, and this in turn triggers physical healing of any illness pertaining to a lack of calcium within the body. Also it is basic medicine to perform a simple blood test to establish that the client is suffering from a lack of calcium. Thus if you were treating a client with osteoporosis the client in this position would benefit from treatment with crystal healing using calcite crystals.

Our planet Earth is a living breathing organism that is in many respects comparable to the human body. The Earth has continental plates that are always undergoing continual motion. This represents the energy of the Earth. In the fiery depths of the Earth there are volcanoes and incredibly hot thermal currents that meltdown stone. This is the Earth's fire element. The rivers and oceans form the circulation system of the Earth and it is natural this would be the element of water. The Earth's air element is represented by the winds. Thus when all four elements are empowered at once, then we experience the storm Element. All of these elements work in conjunction in order to balance the Earth. In our bodies we have five systems: the physical, energetic, emotional, mental and spiritual. The electromagnetic field of the Earth is the Earth's aura much like the human's electromagnetic field is the human's aura. The electromagnetic energy of the Earth affects all of us and the health of the Earth is very important so that the health of the organisms she supports is maintained. The Earth's systems follow the same principles as the human body. If the Earth's rivers and oceans are polluted, it will affect the Earth's circulation and consequentially if there is a lack of clean water to drink, our bodies' circulatory system will run into trouble. The crystals from the Earth relate to the physical elements within the human body.

In our bodies the physical level of vibration is governed by the Earth element, the energetic level by the fire element, the emotional level by the water element, the mental level by the wind element and the spiritual level by the storm element. Each crystal is related to an element.

Earth Element crystals

Stones that are related to the Earth element are lower in frequency and are often magnetic stones. These relate to the physical level of our being. They enable one to be more present in the physical body and help one to feel more grounded in the Earth. They also balance the Earth Star chakra which is about 6 inches below our feet. They also balance the root chakra. Earth stones support the solid structures in our bodies such as bones and muscles. They also help with changes in the structure of our lives such as moving house or changing careers. This relates to our being grounded in this physical plane and having enough material resources to feel safe and secure. Take for example, the crystal, Magnetite. This is made up of Magnesium. Magnesium is vital in bone structure and for hundreds of chemical reactions throughout the body. If you were to have a lack of magnesium in your body you would start to suffer with severe muscle spasms, lack of concentration, learning difficulties, sleep problems and personality changes.

Fire Element crystals

The energetic level is governed by fire stones. These help to strengthen the energetic systems of the body. They govern the energy flow through the chakras and meridians. They help with the reproductive, digestive and endocrine systems. Fire governs how we experience and put our energy in this world. Fire crystals affect the sacral and solar plexus chakras. These chakras affect our will and personal power and our ability to create. Fire symbolizes motivation and creativity we

always speak of getting the creative fires going putting a fire under someone's butt.

Water Element crystals

The water element stones govern the emotional body and physical body systems such as circulation, lymphatic system and bodily fluids. Water has to do with releasing the past and flowing gently towards the future. It has to do with love, compassion and expression of those feelings with the truth. The element of water relates to the heart and throat chakras. These crystals also relate to all aspects of relationships.

Wind element stones

The wind element stones govern the mental aspect as well as our ability to open the doorway of the spirit world. This element balances the third eye and chakras. Physically it relates to mental cognition and enhanced mental function. These crystals help us in the art of meditation.

Storm element stones

Storm element crystals are used when there is a major transformation needed or cleansing and balancing. These crystals work at many different levels which affect all other systems of the body. They should only be used for short periods and also relate to the soul star chakra which is situated 6 inches above our crown.

HOW THE CRYSTALS WORK

The way in which crystals are able to move vibrations into the physical realm is through means of their base resonance vibrations. Everything in the universe vibrates and crystals bring about healing through using the law of resonance.

The law of Resonance: When two bodies meet the one with the highest amplitude will bring the other into resonance with it. If you start a big tuning fork on a wood base in one end of a room, and have a similar tuned big tuning fork on a wooden base (amplifier) somewhere else in the room, the tuning fork that you did not touch will start by itself, sparked into reaction by the first tuning fork.

In human terms we find that when one vibrating system [physical body] comes into contact with another vibrating system [like a crystal] then the vibration of the weaker body will adjust its vibration to match that of the stronger body. For example: If we have a group chanting and the lead chanter has a strong tone all the other people chanting will fall into resonance with that person and they will all chant on the same note.

The brain has an electromagnetic field that reaches out to four feet from the body but the heart is sixty times stronger electrically and five thousand times stronger magnetically than the brain so the heart has an electromagnetic field of twelve feet away from the physical body. We can sense a person's energy field when they are 24 feet away from us.

"With a properly cut crystal a healer can, like a surgeon cutting away a tumour, release negative patterns in the energy body, and allowing the physical body to return to a state of wholeness. A crystal works like a laser as it takes scattered energy and is able to collect and focus the energy into a coherent powerful directional force." [Gerber 2001:339]

When healing energy is focused through Quartz crystal, the crystal then amplifies the energy and energies into the part of the subtle anatomy most in need of healing.

Another school of thought is that the crystals may then be categorised according to their structure. The geometric patterns are thought to influence different levels of subtle systems. Each geometric pattern gives rise to a specific vibration.

Crystalline structure	Example	Function	Related chakra
Trigonal	Bloodstone , Carnelian	Continually give off energy and balance the subtle body and meridians	Root
Cubic	Diamonds, Garnets	Their energy patterns help repair damaged cellular structures from DNA to the skeletal structure	Sacral
Hexagonal	Emeralds, Beryl	They give off energy that encourages growth and vitality. Can be used for healing, balancing energy, communication. They enhance creativity	Solar plexus
Tetragonal	Wulfenite, Zircon	Absorb negative energy and transmute it into positive energy. Good for attunement to higher dimensions	Heart
Orthorhombic	Peridot, Topaz	Assist in bringing perspective to issues that are out of proportion. They magnify and remove what is not important	Throat
Monoclinic	Azurite, Moonstone	Facilitate expansion and growth and clear away blocks to inner vision	Brow
Triclinic	Turquoise, Rhodonite	Balance energy that it out of alignment and help with attunement to higher dimensions	Crown

OTHER USES OF CRYSTALS:

You can use crystals in order to alter the climate of a room e.g. Amethyst geode or Smokey Quartz which will attract negative energy and transmute it into light.

1. Slices of crystals such as Agate make gorgeous wind chimes and the soothing sounds they make are calming.
2. Tumbled crystals are very pretty and smooth and are also very good to carry in your pocket as, depending on the stone, they positively affect the subtle energy body. For example, carrying tourmaline repels negative energy, so carrying this when you know you will be faced with negativity in certain circumstances in your day will help you.
3. A Thumb stone (or worry stone) is a crystal tumbled with an indentation for you to rub with your thumb. This helps to soothe and calm.
4. Jewellery is an excellent way to wear healing crystals. Common forms used are pendants, crystals pierced and threaded as beads on a necklace or in earrings. Wearing or carrying healing crystals are ways of keeping the stone close to your body for a long period. They need to be carried or worn until there is a clear improvement in the situation.

5. "Donuts" are flat, round crystals with a hole in the middle which are usually worn to bring good luck. In the past, amber was often worn in this way to bring the wearer luck.
6. Crystal pyramids are used to concentrate energy, recharge other crystals and as a means of drawing energy into an area.
7. Crystal spheres can be used for meditation and healing.
8. Wands are made of metal or wood, with a crystal on one or both ends. These are mainly used for healing, but can also be used in acupuncture massage.
9. Gem essences are made by infusing water with crystal energy. The resultant essence can be taken internally, applied externally or used in poultices, infusions and baths.

These examples of other uses of crystals serve to highlight how crystals mean many different things to different people. In addition to being a healing tool within the modality of crystal healing, they can be a gift for a loved one, used as jewellery, something beautiful to admire or a teacher. Whatever purpose they may serve, they are beautiful gifts from the Earth.

Many people have an intuitive affinity to crystals and are drawn to certain crystals at certain times in their lives. The role of the crystal healer is to assist by knowing which crystals might assist in certain circumstances and then be able to help a patient's road to recovery by applying a body of knowledge about crystals to the history the patient provides.

CASE STUDIES

The best way to illustrate how the principles I have discussed in this paper have real-life application is to describe three case studies from my life and practice. The first, drawn from my own life, illustrates how we are often intuitively drawn to the crystal we need at certain times in our lives, even when we don't know what the properties of a particular crystal are or what ails us. The second and third case studies illustrate how the energy fields of the main constituent element in a crystal can influence the physical body on a cellular level to promote healing.

Case study 1:

I have had a lifelong fascination for crystals and have been collecting them since I was five years old. When I held one in my hand I felt different, sometimes happier and, at other times, calmer. This was not something I could explain.

Initially, I just loved all the different colours and all the intricate shapes and sizes. I always preferred the raw cut ones. Then I found that, at different times, I would choose a particular crystal, carry it around with me and keep it on my bedside table at night. Looking back, I realise that I was instinctively using crystals to heal myself or help myself cope with different stresses.

When I was ten years old, I lost my father and I became inseparable from a rose quartz heart. It somehow helped me through my grief. I now know that this is a crystal that helps in dealing with grief and brings the energy of unconditional love right through all the energy bodies to the physical.

As I reflect on this personal experience now that I know so much more about crystals, the etheric and physical body and healing, I am surprised at how accurate our intuitive selves can be. As a result, when working with child patients, I now often ask them to choose a crystal from a tray in order to get a first insight into their problem (particularly when it is emotional rather than overtly physical). I am continually amazed at how they instinctively choose the crystal that is appropriate for their condition. Often, I get them to describe what they feel as they hold the crystal they have chosen, as this gets them to verbalise the problem they are facing.

CONCLUSION

Crystal healing is a modality that relies on the interplay between the human energy field and crystal energy. This interplay is neither random nor inexplicable. It can be explained using the terms and theories of energy and its behaviour that are coming out of research into quantum physics.

In this paper, I have started by outlining some of the key theories coming out of physics research within the branch of physics called quantum physics in order to explain the scientific basis for crystal healing as a modality.

Quantum physics has evolved as a means to explain phenomena that “mainstream” or Newtonian physics cannot and has shown scientists that a different view of energy to that accepted in Newtonian physics is required by scientists. The research output of quantum physics is providing a picture of energy more closely linked to the one underpinning crystal healing as a modality.. For those of us using crystals for healing, it has just substantiated what we have always known, but not always been able to explain: that the vibrations within the crystals have an effect on the vibrations of other objects and living beings.

Then, I have described the way crystals are formed with an emphasis on the chemical and energetic aspects of crystals in order to explain how the theories of energy apply to crystal structures. Of particular interest to crystal healing, are the seven crystal lattice structures, as they relate directly to the vibrational frequency of each crystal, which is central to its use in healing.

The next concept discussed in this paper really brings all the theory to bear on the fundamental starting point of crystal healing as a modality: that we each have an energetic body as well as a physical body. This is the human energy field (the electromagnetic energy field surrounding the physical body, also known as the auric field or aura). The human energy field is discussed with particular reference to how the crystal energy field interacts with the auric field to effect change in energy vibration – and thereby healing.

In the second section of the paper, an overview of the history of the human use of crystals was outlined to provide background to the evolution of the modality before a discussion of various case studies was used to synthesise the theory outlined in the first section of the paper.

From the above, it is clear that:

Quantum science has shown that everything that surrounds us, including ourselves, is a seething mass of energy. We know that every particle has an impact on the particles that surround it and this affects the energetic formation of our surroundings. As humans we are surrounded by an electromagnetic field known as the Aura. In order for our physical body to remain in a state of health the molecules in the aura and physical body need to resonate at the base frequency that is healthy.

When the base resonant frequency of a part, or the whole of our body becomes discordant then problems start to develop. Crystal healing is a modality used to bring the vibration of the body back into harmony and thus improve and condition related to disease or discomfort. In crystal healing, the energy within the crystal is brought close to the patient’s energy field and used to influence the vibration of the patient’s energy field to bring about healing. While different cultures have used crystals in slightly different ways, the common thread is that, throughout human history, we have used and revered crystals.

This paper has shown how crystal healing needs to be regarded as a science-based alternative

healing modality. While many people may have regarded this to be a pseudo-science and would not consider consulting a crystal healing practitioner, I believe the evidence put forward in this paper proves that crystal healing has a solid foundation in science and should be given the recognition it deserves.



Diagram 11: Crystal healing session

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